Application No.: 10/647,737 Docket No.: 05542/073001

# REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

### Disposition of Claims

Claims 21 was pending in this application. Claims 22-24 were added by this reply.

Claims 21 and 22 are independent. Claims 23-24 depend from independent claim 22.

### Claim Amendments

Claim 21 is amended by this reply to clarify the primary emulsifier used. Claims 22-24 are added by this reply to recite the use of a polyamide rheology modifier. No new matter has been added by these amendments. Support for the amendments may be found at least in the paragraphs starting on page 6, line 1 and line 27.

### Rejection(s) under 35 U.S.C. § 103

Claim 21 stands rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 2,994,660 issued to Reddie et al. ("Reddie") in view of U.S. Patent No. 6,017,854 issued to Van Slyke ("Van Slyke"). This rejection is respectfully traversed.

Claim 21 recites a drilling fluid that includes, *inter alia*, an oleaginous fluid comprising from about 30% to about 95% by volume of the drilling fluid as the continuous phase; a non-oleaginous fluid comprising from about 5% to 70% by volume as the non-continuous phase; a primary emulsifier in an amount sufficient concentration to stabilize the invert emulsion; and a rheology modifier, wherein the rheology modifier is a mixture of  $C_{12}$  to

 $C_{22}$  poly-carboxylic fatty acids, including at least a dimer poly-carboxylic  $C_{12}$  to  $C_{22}$  fatty acid, and a trimer poly-carboxylic  $C_{12}$  to  $C_{22}$  fatty acid, wherein the mixture of poly-carboxylic fatty acids is added in sufficient concentration so that the trimeric poly-carboxylic fatty acid concentration in the drilling fluid is greater than 0.1 pounds per barrel and is up to 5.0 pounds per barrel.

Reddie teaches a water-in-oil (invert) emulsion type drilling fluid. This fluid is formed using a polybasic fatty acid polymer and a polyamine and/or polyamino alcohol emulsifier and exhibits, according to Reddie, excellent rheological properties. See col. 2, lines 53-62. The water phase may be made up using fresh water, water with various contaminants, or sea water. See col. 4, lines 20-32. The oil phase may be made up using either refined or crude oils or other hydrophobic inert fluids; however, diesel oil or fuel oil are preferable. See col. 5, lines 18-29. Reddie teaches that its invert emulsion is stabilized by a polybasic fatty acid polymer and a selected polyamine or polyamino alcohol, as co-emulsifiers. See col. 2, lines 53-57. The polybasic fatty acid may be a dimer or trimer of an unsaturated C<sub>12</sub> to C<sub>24</sub> fatty acid or mixtures of these dimers and trimers. The other emulsifier used with the polybasic fatty acid polymer is either a polyamine or a polyamino alcohol, or combinations thereof. See col. 10, lines 36-42. However, claim 21, as amended, requires the primary emulsifier to be an amidoamine and/or an oleate ester, neither of which are taught in Reddie.

Van Slyke discloses a fluid that contains one or more non-aqueous fluids, a viscosifying agent, and optionally, weighting agents, organophilic clays, fatty acid dimers and trimers. Nowhere in Van Slyke is there any suggestion of use of an amidoamine and/or an oleate ester, as a primary emulsifier. Rather, other than stating that there may be a primary emulsifier, no examples of such emulsifiers are described.

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A prima facie case of obviousness requires that all claim elements and limitations be taught or suggested by the prior art. See In re Royka, 490 F.2d 981 (CCPA 1974); MPEP §§ 706.02(j), 2143.03. If even a single claim limitation is not taught or suggested by the prior art, then that claim cannot be obvious over the prior art. Id. Therefore, because neither Reddie or Van Slyke, whether considered separately or in combination, show or suggest every claim element in amended claim 21, claim 21 is patentable over Reddie and Van Slyke. Accordingly, withdrawal of the rejection is respectfully requested.

With respect to new claims 22-24, nowhere in Reddie or Van Slyke is there any suggestion of a polyamide rheology modifier that is the condensation reaction product of a C<sub>12</sub>-C<sub>22</sub> fatty acid and a polyamine. Therefore, because neither Reddie or Van Slyke, whether considered separately or in combination, show or suggest every claim element in new claim 22, claim 22 is patentable over Reddie and Van Slyke. Dependent claims are patentable for at least the same reasons. Accordingly, allowance of the claims is respectfully requested.

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# Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 05542/073001).

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Respectfully submitted,

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Attachments